

What is claimed is:

1. An isolated or recombinant CCX CKR polypeptide or fragment thereof, wherein said polypeptide or fragment binds ELC, SLC or TECK.

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2. The polypeptide or fragment of claim 1, wherein the polypeptide has an amino acid sequence that is at least 90% identical to SEQ ID NO:2.

3. The polypeptide or fragment of claim 2, that specifically binds to an antibody generated against a polypeptide of SEQ ID NO. 2.

4. The polypeptide of claim 1 that has an amino acid sequence identical to SEQ ID NO:2, or an immunogenic fragment thereof.

5. A fusion protein comprising a polypeptide of claim 1.

6. An isolated polynucleotide that encodes the polypeptide of claim 1 or a fragment thereof.

7. A polynucleotide comprising a sequence encoding a polypeptide that has a chemokine binding activity and which is:

(a) a polynucleotide having the sequence of SEQ ID NO:1 or SEQ ID NO 3; or

(b) a polynucleotide which hybridizes under stringent conditions to (a); or

(c) a polynucleotide sequence which is degenerate as a result of the genetic code to the sequences defined in (a) or (b).

8. The polynucleotide of claim 7 that is operably linked to a promoter.

9. A recombinant vector comprising the polynucleotide of claim 7.

10. The vector of claim 9 that is an expression vector.

11. A cell comprising the vector of claim 9.

12. The cell of claim 11 that is a eukaryotic cell or a mammalian cell.

5 13. A method for producing an CCX CKR protein, peptide or fusion protein comprising culturing the cell of claim 11 under conditions in which the polynucleotide is expressed.

10 14. A polynucleotide primer, probe, antisense oligonucleotide or ribozyme comprising at least 15 contiguous bases identical or exactly complementary to SEQ ID NO:1.

15 15. An antibody, or fragment thereof, wherein the antibody or antibody fragment specifically binds to the polypeptide of claim 4.

16. The antibody of claim 15 that is monoclonal.

17. The antibody of claim 16, wherein the antibody binds with an affinity of at least about  $10^8 \text{ M}^{-1}$ .

20 18. An isolated cell capable of secreting the antibody of claim 16.

19. A hybridoma capable of secreting the antibody of claim 16.

25 20. A method of detecting an CCX CKR gene product in a sample comprising:

a) contacting the sample with a probe that specifically binds the gene product, wherein the probe and the gene product form a complex, and detecting the formation of the complex; or,

30 b) specifically amplifying the gene product in the biological sample, wherein said gene product is a polynucleotide, and detecting the amplification product;

wherein the formation of the complex or presence of the amplification product is correlated with the presence of the CCX CKR gene product in the biological sample.

21. The method of claim 20, wherein the gene product is a polypeptide.

22. The method of claim 20, wherein the probe is an antibody.

23. The method of claim 20, wherein gene product is an RNA and the probe is a polynucleotide.

24. A method of amplifying a CCX CKR polynucleotide in a sample comprising

(a) adding reagents sufficient for a polymerase chain reaction and at least two different primers to the sample, wherein each of said primers comprise at least 10 contiguous nucleotides identical or exactly complementary to SEQ. ID. NO:1; or,

(b) adding reagents sufficient for a ligase chain reaction and at least two different oligomers to the sample, wherein each of said primers comprise at least 10 contiguous nucleotides identical or exactly complementary to SEQ. ID. NO:1.

25. A method for identifying a modulator of the binding of CCX CKR to a chemokine comprising

(a) contacting an isolated or recombinant CCX CKR polypeptide and the chemokine in the presence of a test compound, and

(b) comparing the level of binding of the chemokine and the polypeptide in (a) with the level of binding in the absence of the test compound,

wherein a decrease in binding indicates that the test compound is an inhibitor of binding and an increase in binding indicates that the test compound is an enhancer of binding.

26. The method of claim 25 wherein the chemokine is ELC, SLC, TECK, BLC, CTACK, mMIP-1 $\gamma$  or vMIPII.

27. The method of claim 25 wherein said contacting said polypeptide comprises contacting a cell expressing the polypeptide.

28. A process for providing a pharmaceutical composition, comprising effecting the steps of a method of claim 25 and thereafter formulating a modulator for pharmaceutical use.

5 29 A method of identifying a modulator of CCX CKR activity comprising contacting a cell expressing a recombinant polypeptide of claim 1 and a test compound and assaying for a biological effect that occurs in the presence but not absence of the test compound, wherein a test compound that induces a biological effect is identified as a modulator of CCX CKR activity.

10 30. The method of claim 29, wherein the biological effect is receptor internalization.

15 31. The method of claim 30, further comprising contacting the cell with a chemokine.

20 32. A process for providing a pharmaceutical composition, comprising effecting the steps of a method of claim 25 and thereafter formulating a modulator of CCX CKR activity for pharmaceutical use.

33. A method of treating an CCX CKR-mediated condition in a mammal comprising administering an agent that modulates the activity or expression of CCX CKR in a cell or tissue in the mammal.

25 34. The method of claim 33 wherein the agent is an agent that inhibits the binding of CCX CKR to ELC, SLC or TECK.

30 35. The method of claim 33 wherein the CCX CKR-mediated condition inflammation, allergy, an autoimmune disease, graft rejection, cancer, an infectious disease or an immunosuppressive disease.

36. The method of claim 35 wherein the CCX CKR-mediated condition is inflammation.